

VEGAPULS Air 41/42

Version, available since	Description
2.2.1, 3/2026	Error corrections <ul style="list-style-type: none"> - Security improvements
2.2.0, 12/2025	Function extensions <ul style="list-style-type: none"> - Advanced error handling for mobile communications phone, including retries and mobile phone module reset - Reset mobile phone module if dial-up to mobile phone network is not possible - Reset mobile phone module after 6 failed transmissions - Behaviour in case of echo loss adjustable Fault message or minimum distance value - FOTA: Additional message to VIS if FOTA failed - Adjustment of mobile phone bands - Counter for mobile phone transmissions - Display of information about the last mobile phone transmission - Deletion of position-related data possible - Battery level can be corrected - LoRa Confirmed Retries set to 1 - LoRa band for Argentina on AU915 Error corrections <ul style="list-style-type: none"> - Determination and transmission of signal strength for each mobile phone transmission - Static energy value (NBloT_Additive) reduced by a factor of 3 - Static energy value is now only deducted when sending and no longer when measuring (bug fix for bulk shipping) - FOTA is possible in any operating mode - LoRaWAN: Return channel also for confirmed messages
2.1.0, 10/2024	Function extensions <ul style="list-style-type: none"> - LoRaWAN <ul style="list-style-type: none"> o New Re-Join function with LinkCheck is activated by default o New default band AS928 for Australia and New Zealand o Private network can be switched on - Increased security thanks to updated encryption algorithms - Increase battery life by shortening the start time - Entries in the event memory when a FOTA update is carried out

Overview of the software versions

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	<ul style="list-style-type: none"> - Software update of the entire device via mobile radio is encrypted <p>Error corrections</p> <ul style="list-style-type: none"> - Transmission problems in connection with GNSS solved - Correct calculation of the battery level for collective shipping - Transmission also in collective shipping if time is restricted - Incorrect entries in the event memory have been removed (error 2017) - Error battery level resets after software update - solved - Error GNSS repetitions lead to an increase in the change memory - solved - Incorrect entries in the event memory when using the LoRa return channel removed - Correct transmission of the measurement and transmission interval for LoRa devices
<p>2.0.1, 5/2023</p>	<p>Function extensions</p> <ul style="list-style-type: none"> - Software update of the complete device via Bluetooth and mobile radio - Extension of the transmission packages for mobile radio and LoRa <ul style="list-style-type: none"> o Information packages in case of change o Deactivation message in the Cloud o Transmission of additional measured values such as percent, lin. percent and scaled (only LoRa) o Transmission temperature unit - Adjusted unit of the physical measured value and the temperature affects the transmitted measured value - Maintenance slot can be booked for service - During a Bluetooth connection, the position is not constantly determined, but must be triggered by action - Improved position determination through A-GPS - Acceptance and transmission of the position of the adjustment tool - Event-controlled measurement and transmission interval, change of transmission interval when a certain event occurs - Deactivation via return channel - Trigger for position determination to 65° - Mobile radio <ul style="list-style-type: none"> o Collective transmission possible (measure hourly, send daily) o Implementation of the Connection ID o Adaptation bands for Canada and Australia o Deactivation of the radar measurement during transmission o Use of current encryption methods o Energy savings through the use of Release Assistance Indication - LoRa

Overview of the software versions

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	<ul style="list-style-type: none"> ○ The target system for the measured values can be selected and thus adjustment, linearisation and scaling can be adjusted for external systems ○ VVO return channel ○ Band AU915 for Australia ○ Repetition of the Join in the AU915 band (8x) ○ Emitted power for Australia/New Zealand in the AU915 band reduced <p>Error corrections</p> <ul style="list-style-type: none"> - Transmission of the correct transmission interval in 24-hour mode - Transmission of an NAN in case of unsuccessful position determination - LoRa: Setting default settings before a Join
<p>1.2.1, 3/2022</p>	<p>Function extensions</p> <ul style="list-style-type: none"> - Mobile radio <ul style="list-style-type: none"> ○ IMEI readable <p>Error corrections</p> <ul style="list-style-type: none"> - LoRa <ul style="list-style-type: none"> ○ ADR functions also with NBTrans > 1
<p>1.2.0, 11/2021</p>	<p>Function extensions</p> <ul style="list-style-type: none"> - Mobile radio <ul style="list-style-type: none"> ○ Extended error handling if no connection to the server can be established ○ Release band 28 for Germany - LoRa <ul style="list-style-type: none"> ○ Adaptations for LoRa software 1.1.6 ○ New bands available IN868, AU915, KR920 (only with LoRa software 1.1.6) ○ When a join is triggered, the spread factor, data rate and repetitions are set to default. ○ Assignment of country to band adapted ○ Reset value changed from ADR to ON <p>Error corrections</p> <ul style="list-style-type: none"> - Mobile radio <ul style="list-style-type: none"> ○ Unnecessary additional dialling into the mobile network prevented - LoRa <ul style="list-style-type: none"> ○ Device answers to LinkADRReq sommand (only with boot part software 1.0.2.1) - Position determination <ul style="list-style-type: none"> ○ No more position determination despite deactivated position determination when changing radio cells

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	<ul style="list-style-type: none"> - In general <ul style="list-style-type: none"> o No more faulty entry (inconsistent software configuration) in diagnostic memory during software update
1.1.0 5/2021	<p>Function extensions</p> <ul style="list-style-type: none"> - Return channel via mobile radio <ul style="list-style-type: none"> o Transmitting interval can be changed o Measured value determination and transmission repeatable o Position determination enforceable at next measurement o LoRa Join executable o ... - Mobile radio <ul style="list-style-type: none"> o eDRX possible - Software update <ul style="list-style-type: none"> o Software update of the mobile modem via mobile radio possible - LoRa + Mobile radio <ul style="list-style-type: none"> o Each time the sensor is activated via NFC or magnetic pen, a join (LoRa only) and a measured value transmission is triggered - Inclination angle <ul style="list-style-type: none"> o No more error status is set for inclinations above 20° - Transmission interval <ul style="list-style-type: none"> o Reset values to 6 hour interval - Position determination <ul style="list-style-type: none"> o The position is determined when the radio cell is changed <p>Error corrections</p> <ul style="list-style-type: none"> - Bluetooth <ul style="list-style-type: none"> o Optimization when using smartphones
1.0.0, 1/2021	First sales version

Legend:

Name	Description
Version	xx.yy.zz xx: Compatibility version. Will be increased when the compatibility to the previous version is no longer given. Value range 0 ... 99. yy: Function extension version. Will be increased when new functions or function changes were carried out on the previous version. Also errors can have been corrected with a function change. Value range 0 ... 99. zz: Error correction version. Will be increased when only errors were corrected on the previous version. Value range 0 ... 99.

Overview of the software versions

Name	Description
available since	Month/Year